Title (en)

Method and apparatus for measuring incident light angle relative to a reference.

Title (de)

Verfahren und Vorrichtung zum Messen des Lichteinfallwinkels relativ zu einer Referenz.

Title (fr)

Méthode et appareil mesurer l'angle d'incidence d'un rayon ou plan lumineux par rapport à une référence.

Publication

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Application

EP 89313056 A 19891213

Priority

US 31751289 A 19890301

Abstract (en)

Apparatus (100) operable in accordance with the method of the present invention for measuring the angle of incidence of a light beam or plane (108) relative to level comprises a photodetector array (102) for sensing the light and a level mirror (104) preferably comprising a pool of mercury. Optics (112, 114, 118, 120) are provided for transmitting the light to the photodetector array in alignment with the angle of incidence of the light (aligned light) and also after the light has been reflected from the mercury pool (reflected light). A shutter (106) is provided for separating aligned light from reflected light such that distinct signals representative of the two are generated by the photodetector array. The distinct signals are processed by up-counting and down-counting a counter circuit to determine the average centers of light spots representative of the aligned light and the reflected light and the distance between those average centers which is representative of the deviation of the light beam or plane (108) from level.

IPC 1-7

G01B 11/26; G01S 3/78

IPC 8 full level

G01C 1/00 (2006.01); **G01B 11/26** (2006.01); **G01C 15/00** (2006.01); **G01S 3/782** (2006.01)

CPC (source: EP US)

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